

Salem 2

Initiating Events

Significance:  May 11, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATE IMPLEMENTATION OF PROCEDURES CONTROLLING REACTOR COOLANT SYSTEM COOLDOWN RATE

Technical Specification 6.8.1.a requires that written procedures be established, implemented and maintained covering the applicable procedures recommended by Appendix "A" of Regulatory Guide (RG)1.33, Revision 2, February 1978. RG1.33 requires general plant operating procedures for hot standby to cold shutdown. Salem operations procedure S2.OP-IO.ZZ-0006(Q), "Hot Standby to Cold Shutdown," step 3.6.3 provides precautions and limitations to determine RCS temperature and pressure at least once per 30 minutes with a maximum cooldown rate of 100°F in any one hour. Contrary to the above, PSEG Nuclear inadequately implemented S2.OP-IO.ZZ-0006(Q) and inadequately determined that RCS temperature was within limits with a maximum cooldown of 100°F in any one hour period when the RCS temperature change exceeded the 100°F limit between 0150 and 0219 hours with a maximum temperature drop of 127°F in a one hour period. This issue was placed into PSEG Nuclear's correction action program as notification 20095802. Inspection Report# : [2002004\(pdf\)](#)

Significance:  Apr 01, 2000

Identified By: Self Disclosing

Item Type: FIN Finding

A TECHNICIAN APPLIED A JUMPER TO THE WRONG RELAY CONTACTS DURING ON-LINE MAINTENANCE, CAUSING A COMPLETE LOSS OF ALL CIRCULATING WATER TRAVELING SCREENS

A maintenance technician applied a jumper to the wrong contacts on a protective relay during a planned on-line maintenance activity associated with the 12B circulating water pump breaker. This error resulted in the complete loss of all circulating water system traveling water screens (TWSs). The safety significance of this event was very low because the TWSs were restored within five minutes and there was no observable affect on circulating water flow to the main condenser.

Inspection Report# : [2000002\(pdf\)](#)

Significance:  Aug 29, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO COMPLY WITH TS 3.11.2.5 WITHIN THE REQUIRED TIME PERIOD

Unit 2 operators were slow in reducing the oxygen concentration in the waste gas decay tank to levels below those potentially explosive and exceeded the time limit required by technical specification 3.11.2.5. The risk associated with this event was minimal because all fire protection equipment remained available. This event was characterized as a "green" issue due to its very low safety significance since all fire protection equipment in the area remained available and the event was of limited duration.

Inspection Report# : [1999007\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: NRC

Item Type: FIN Finding

FIRE PROTECTION/BARRIERS

PSEG maintained appropriate control of combustibile material and ignition sources in inspected areas. In general, impaired fire barriers were clearly tagged and documented in the corrective action program (CAP). However, the inspectors discovered some minor deficiencies such as a fire door which would not completely close without operator assistance. The minor violation associated with the fire door which would not close completely without operator assistance was classified as a green finding due to its very low safety significance.

Inspection Report# : [1999005\(pdf\)](#)

Mitigating Systems

Significance: TBD Sep 30, 2002

Identified By: NRC

Item Type: URI Unresolved item

PSEG NUCLEAR FAILED TO PROPERLY MAINTAIN ROOM ISOLATION BARRIERS AND IMPROPERLY IMPLEMENTED A MODIFICATION TO THE SWITCHGEAR PENETRATION AREA VENTILATION SYSTEM

The inspectors identified an apparent violation of License Conditions 2.C.5 (Unit 1) and 2.C.10 (Unit 2). PSEG Nuclear failed to properly maintain the carbon dioxide automatic fire suppression system as required by the fire protection program. Specifically, tracer gas testing identified that leakage from six safety-related electrical rooms (three at Unit 1 and three at Unit 2) was sufficient to prevent the carbon dioxide (CO₂) system from reaching and maintaining the 50 percent CO₂ concentration for a hold time of 20 minutes as required by the National Fire Protection Association (NFPA)-12, "Standard on Carbon Dioxide Extinguishing Systems." The leakage problems were attributed to a faulty design modification and a failure to perform effective preventive maintenance on the area isolation barriers. The determination of the significance of this finding was not completed by the end of the period. Therefore this finding will remain unresolved pending completion of the significance determination process (SDP).

Inspection Report# : [2002007\(pdf\)](#)

Significance:  Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO IMPLEMENT PROMPT AND EFFECTIVE CORRECTIVE ACTIONS SUBSEQUENT TO A JANUARY 2001 SURVEILLANCE TEST

PSEG Nuclear failed to implement effective corrective actions subsequent to January 2001 surveillance testing that indicated that the Unit 1 auxiliary building ventilation (ABV) system charcoal adsorber bank was degraded. The charcoal bank failed the next scheduled test conducted in August 2002 and placed the unit into a twenty-four hour shutdown action statement. This finding was evaluated using the Phase 1 SDP worksheet and determined to be of very low risk significance (Green), because the problem only affected the radiological barrier function of the auxiliary building. Additionally the test results indicated that the charcoal performance would have met the design analysis assumptions. This very low risk significance violation has been entered into PSEG Nuclear's corrective action program as notification 20101881 and is being treated as a non-cited violation consistent with the NRC's enforcement policy. The charcoal bank failed the next scheduled test conducted in August 2002 and placed the unit into a twenty-four hour shutdown action statement. This finding was evaluated using the Phase 1 SDP worksheet and determined to be of very low risk significance (Green), because the problem only affected the radiological barrier function of the auxiliary building. Additionally the test results indicated that the charcoal performance would have met the design analysis assumptions. This very low risk significance violation has been entered into PSEG Nuclear's corrective action program as notification 20101881 and is being treated as a non-cited violation consistent with the NRC's enforcement policy.

Inspection Report# : [2002007\(pdf\)](#)

Significance:  Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO PROMPTLY IDENTIFY AND CORRECT THE CAUSE FOR AN IMPROPER AIRFLOW CONDITION THAT DEGRADED THE RADIOACTIVE REMOVAL CAPABILITY OF THE ABV SYSTEM

PSEG Nuclear failed to properly evaluate and correct a degraded ABV system condition that adversely affected the radiological barrier function of the system. Specifically, the inspectors identified that airflow was out of the residual heat removal room and into the auxiliary building stairwell. This provided a pathway for radioactive effluents to bypass the auxiliary building ventilation charcoal filters. The inspectors reviewed the SDP Phase 1 screening worksheet and noted that findings that adversely affect the radiological barrier function of the auxiliary building are of very low risk significance. This very low risk significance violation has been entered into PSEG Nuclear's corrective action program as notification 20116935 and is being treated as a non-cited violation consistent with the NRC's enforcement policy
Inspection Report# : [2002007\(pdf\)](#)

Significance:  Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO TAKE ADEQUATE CORRECTIVE ACTIONS FOR A 2001 DILUTION EVENT ON THE UNIT 2 SAT AND FAILED TO PRECLUDE REPEATING THE EVENT ON UNIT 1 SAT

PSEG Nuclear failed to identify the adverse consequences associated with a Unit 1 containment spray additive tank (SAT) increasing level trend that occurred over a several month period. This resulted in dilution of the Unit 1 SAT sodium hydroxide (NaOH) below the TS required minimum concentration value. The inspectors determined that the failure to take adequate corrective actions to preclude repetition of a significant condition adverse to quality constituted a violation of 10 CFR 50 Appendix B, Criterion XVI. Specifically, PSEG Nuclear failed to take adequate corrective actions for a 2001 dilution event on the Unit 2 SAT and failed to preclude repeating the event on the Unit 1 SAT. The risk significance of this finding was very low because the tank concentration was below the TS limit, but was above the minimum calculated NaOH concentration of 28 percent required for the SAT to perform its accident mitigation function. This very low risk violation has been entered into PSEG Nuclear's corrective action program as notification 20101881 and is being treated as a non-cited violation consistent with the NRC's enforcement policy
Inspection Report# : [2002007\(pdf\)](#)

Significance:  Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO ADEQUATELY EVALUATE PREVENTIVE MAINTENANCE ACTIVITIES

A violation of 10 CFR 50.65(a)(3) dispositioned as a non-cited violation was identified because PSEG Nuclear failed to ensure that the objective of preventing failures through maintenance was appropriately balanced against the objective of minimizing unavailability due to monitoring or preventive maintenance. PSEG Nuclear failed to adequately evaluate PM activities for the 22 charging pump, failed to take into account industry-wide operating experience, and failed to ensure that the objective of preventing failure of the 22 CVC pump through maintenance was appropriately balanced against the goal of minimizing unavailability due to preventive maintenance. The cross-cutting aspects of this issue related to problem identification and resolution contributing causes were discussed in NRC Inspection Report 50-272 & 311-2001-012. The risk associated with the failure of the 22 charging pump was determined to be of very low safety significance because the mitigating functions that relied upon a high pressure injection pump were not lost since the redundant high pressure injection pump and both safety injection pumps remained operable during the period of time that the 22 CVC pump was unavailable.

Inspection Report# : [2002006\(pdf\)](#)

Significance:  Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO DOCUMENT AND MAINTAIN QUALITY RECORDS OF EMERGENT TROUBLESHOOTING AND MAINTENANCE ACTIVITIES ON THE CONTROL CIRCUITRY FOR THE 1B EDG

PSEG Nuclear maintenance failed to document and maintain records of emergent troubleshooting and maintenance activities on the control circuitry for the 1B EDG. PSEG Nuclear also failed to maintain records of a September 2000 internal inspection of the 12 charging pump speed increaser. These two examples of PSEG Nuclear's failure to maintain complete and adequate inspection and maintenance records were a non-cited violation of Technical Specification 6.10.1.b and 10 CFR 50, Appendix B, Criterion XVII, Quality Assurance Records. The findings were evaluated using the significance determination process (SDP) and considered to be of very low risk significance because the failure to maintain the records did not affect the availability of the mitigating systems.

Inspection Report# : [2001012\(pdf\)](#)

Significance:  Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURES AND PERFORM AN ADEQUATE POST-TRIP REVIEW FOLLOWING THE PRESSURIZER SPRAY VALVE FAILURE, REACTOR TRIP AND SAFETY INJECTION EVENT

Operating procedures did not provide adequate guidance to operators during their response to a stuck open pressurizer spray valve event that resulted in an automatic reactor trip and safety injection. The instructions which existed regarding the valve, including stopping reactor coolant pumps and isolating control air, conflicted with actions needed to address the event. However, PSEG Nuclear did not identify the procedural deficiencies during the post-trip review of the event as specified by the post-trip review procedure. The failure to identify and evaluate these procedural deficiencies was a non-cited violation. This finding was evaluated using the SDP and determined to be of very low risk significance, because the procedural deficiencies did not prevent the operators from controlling plant pressure during the event.

Inspection Report# : [2001012\(pdf\)](#)

Significance:  Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IMPLEMENT PROMPT CORRECTIVE ACTIONS FOR A DEGRADED 2C EDG CYLINDER ISOLATION VALVE

PSEG Nuclear failed to promptly identify and correct a condition adverse to quality involving a degraded cylinder isolation valve (petcock) which was not functioning properly during corrective maintenance on the 2C EDG. During a subsequent test of the 2C EDG, flames were observed to be coming out of the cylinder 5R petcock, and the CO2 automatic fire suppression system actuated before the operators completed the EDG shutdown. The failure to identify and correct the degraded cylinder isolation valve was considered a non-cited violation of 10 CFR 50, Appendix XVI, Corrective Actions. The finding was evaluated using the SDP and considered to be of very low risk significance, because the emergency diesel generator unavailability time associated with this event was within the Technical Specification allowed outage time.

Inspection Report# : [2001012\(pdf\)](#)

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO PERFORM FUNCTIONAL TESTING OF THE UNIT 2 RADIOACTIVE WASTE GAS HOLDUP SYSTEM EFFLUENT OXYGEN MONITORING SYSTEM WITHIN SURVEILLANCE INTERVAL SPECIFIED BY TS 4.3.3.9 AND 4.0.2

Technical Specification 4.3.3.9 and associated Table 4.3-13, item 1.b, require, in part, that a functional test of the radioactive waste gas holdup system effluent oxygen monitoring system be functionally tested monthly. Technical

Specification 4.0.2 states, in part, that the surveillance requirement shall be performed within the specified surveillance interval with a maximum allowable not to exceed 25 percent of the specified surveillance interval. Contrary to the above, the Unit 2 waste gas analyzer surveillance was not completed until November 29, 2001. This was approximately four days past the maximum allowable overdue date of November 24, 2001.

Inspection Report# : [2001011\(pdf\)](#)

Significance:  Nov 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO PROMPTLY IDENTIFY AND CORRECT A CONDITION ADVERSE TO QUALITY THAT HAD THE POTENTIAL TO AFFECT THE OPERABILITY OF THE NO. 21 CHARGING SYSTEM PUMP

Failure to implement appropriate corrective actions for a degraded no. 22 charging pump (CS) lubricating oil condition. PSEG Nuclear replaced the degraded oil, but did not implement any actions to prevent recurrence. This finding was of very low significance since the no. 22 CS pump has performed satisfactorily subsequent to the oil analysis results being addressed and the lubricating oil replacement.

Inspection Report# : [2001010\(pdf\)](#)

Significance:  Aug 11, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROMPTLY IDENTIFY AND CORRECT AN ADVERSE CONDITION THAT AFFECTED THE OPERABILITY OF THE CONTAINMENT SPRAY ADDITIVE TANK

PSEG Nuclear failed to identify the adverse consequences associated with an increasing Unit 2 containment spray additive tank (SAT) level trend that occurred over a several month period. This resulted in dilution of the Unit 2 SAT sodium hydroxide (NAOH) concentration below the TS required minimum value for a period of up to 109 days. This finding was evaluated using SDP and found to be of very low significance since the tank concentration was above the minimum calculated NAOH concentration required for the SAT to perform its accident mitigation function.

Inspection Report# : [2001008\(pdf\)](#)

Significance:  Aug 11, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO EVALUATE WHETHER A PIPE LEAK IDENTIFIED DOWNSTREAM OF THE 21SW4 VALVE WAS INSIDE THE ASME SECTION OF THE SW SYSTEM FOR SEVEN WEEKS

10CFR50, Appendix B, Criteiron XVI, requires, in part, that conditions adverse to quality be promptly identified and corrected. Contrary to the above, on June 20, 2001, PSEG Nuclear identified a pipe leak downstream of the 21SW4 valve, but did not evaluate whether the leak was inside the ASME section of the SW system until approximately August 9.

Inspection Report# : [2001008\(pdf\)](#)

Significance:  May 19, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

WORKER ADJUSTED THE PACKING ON THE 22 AFW PUMP WITHOUT HAVING AN APPROVED WORK DOCUMENT

TS 6.8.1 requires "that written procedures shall be established, implemented and maintained covering the activities recommended in Appendix "A" of Regulatory Guide 1.33. RG 1.33 requires that procedures be developed to conduct maintenance on safety-related systems. PSEG Nuclear procedure NC.NA-AP.ZZ-0009(Q), "Work Management

Program," requires that individuals perform work in accordance with appropriate work documents. On May 11, 2001, a plant worker adjusted the packing on the 22 AFW pump without having the approved work documents.

Inspection Report# : [2001006\(pdf\)](#)

Significance:  Feb 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

UNTIMELY AND INEFFECTIVE CORRECTIVE ACTIONS TO PREVENT THE RECURRENCE OF VIBRATION INDUCED FAILURES OF THE 21 CCHX OUTLET VALVE, 21SW127

PSEG Nuclear did not take timely and effective corrective actions for vibration induced failures of service water valve 21 SW 127 on the 21 component cooling heat exchanger outlet. Failure of 21 SW 127 rendered the 21 component cooling water (CCW) loop inoperable when the redundant 22 CCW loop was inoperable to support a liquid radwaste discharge. The finding had a credible impact on safety since the failure of 21 SW 127 resulted in both component cooling water loops being out-of-service and resulted in a loss of the decay heat removal safety function. The SDP evaluation determined that the event was of very low safety significance due to the short duration of the event. The failure to implement effective, timely corrective actions for 21 SW 127 was considered a non-cited violation.

Inspection Report# : [2000011\(pdf\)](#)

Significance:  Feb 10, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

LICENSEE IDENTIFIED THAT SAFETY-RELATED VENTILATION DAMPER SPRING WAS MODIFIED DURING MAINTENANCE WITHOUT APPROPRIATE DESIGN CONTROLS

10 CFR 50, Appendix B, Criterion III, Design Control, requires that measures be established for the selection and review for suitability of application of parts that are essential to the safety-related functions of structures, systems and components. PSEG Nuclear identified that while repairing Unit 1 auxiliary building ventilation excess flow damper, S1ABV-1ABS8 under Order 60014824, a spring that assists in damper actuation was modified without the proper engineering documentation. This was documented in the corrective action program as Notification 20052729.

Inspection Report# : [2000011\(pdf\)](#)

Significance:  Nov 11, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SCHEDULE AND PERFORM PREVENTIVE MAINTENANCE FOR A TURBINE DRIVEN AUXILIARY FEEDWATER MODIFICATION

PSEG Nuclear did not perform the specified preventive maintenance (PM) tasks for the new equipment associated with the turbine driven auxiliary feedwater pump enclosure modification at both units. This problem resulted in a credible impact on safety-related equipment which could have affected the availability and reliability of the auxiliary feedwater system. The failure to properly perform PM tasks for new equipment associated with modification 2EC-3522 as required by Procedure NC.WM-AP.ZZ-0003(Q), Rev 0, "Regular Maintenance Process," was considered to be a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings." The issue was determined to be of very low risk significance using the Significance Determination Process phase 1 screening because no actual equipment failures were attributed to the missed PMs.

Inspection Report# : [2000009\(pdf\)](#)

Significance:  Feb 07, 2000

Identified By: NRC

Item Type: VIO Violation

THE CARBON DIOXIDE TESTS FOR THE UNITS 1 & 2 4,160 VAC SWITCHGEAR ROOMS DID NOT

REACH OR MAINTAIN THE REQUIRED CO2 CONCENTRATION OF 50%

PSEG did not ensure that the carbon dioxide concentration tests for the Units 1 & 2 4,160 VAC switchgear rooms reached and maintained the required CO2 concentration of 50%. This is a violation of Unit 1 license condition C.5 and Unit 2 license condition 2.C.10. This finding was determined to be WHITE by the significance determination process. The safety significance of this WHITE finding is low to moderate. During the supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspector determined that PSEG had performed a comprehensive evaluation of the failure of the carbon dioxide suppression system to achieve its design concentration. PSEG is currently working to correct carbon dioxide concentrations for the total flooding fire suppression systems, upgrade electrical raceway fire barrier systems, and convert the 4160v switchgear room fire suppression systems from manual to automatic. Based on PSEG's acceptable performance in addressing the switchgear room fire suppression system issue, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in NRC Inspection Manual Chapter 0305.

Inspection Report# : [1999010\(pdf\)](#)

Significance:  Feb 07, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO ENSURE THE CO2 SYSTEMS FOR THE UNITS 1 & 2 4,160 VAC ELECTRIC PENETRATION ROOMS REACHED AND MAINTAINED THE REQUIRED CO2 CONCENTRATION

The team identified that the carbon dioxide concentration tests for the Units 1 & 2 electrical penetration areas did not reach or maintain the required CO2 concentration of 50%. This failure is a violation of license conditions for each unit. This finding was evaluated by the significance determination process (SDP) and determined to be GREEN based on the other detection and suppression systems available in the area. The safety significance of this finding is very low.

Inspection Report# : [1999010\(pdf\)](#)

Significance:  Feb 07, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG FAILED TO ENSURE THAT ONE TRAIN OF EQUIPMENT NECESSARY TO ACHIEVE HOT SHUTDOWN FROM THE EMERGENCY CONTROL STATION IS FREE OF FIRE DAMAGE

PSEG identified a condition in which they failed to ensure that one train of equipment necessary to achieve hot shutdown from the emergency control station is free of fire damage. This is a non-cited violation of Section III.G.1.a of Appendix R. This issue was evaluated by the SDP and found to be within the licensee's response band. (GREEN) The safety significance of this finding is very low.

Inspection Report# : [1999010\(pdf\)](#)

Significance:  Feb 07, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG IDENTIFIED A CONDITION IN WHICH A FIRE COULD DAMAGE CABLES SUCH THAT THE POWER OPERATED RELIEF VALVE WOULD OPEN AND THE ASSOCIATED BLOCK VALVE COULD NOT BE CLOSED.

PSEG identified a condition in which a fire could damage cables such that the power operated relief valve would open and the associated block valve could not be closed. The failure to protect one train of equipment necessary to achieve hot shutdown is a violation of III.G.1.a of Appendix R. This finding was evaluated by the SDP and determined to be GREEN. The safety significance of this finding was very low.

Inspection Report# : [1999010\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE ACCEPTANCE CRITERIA IN SURVEILLANCE TEST PROCEDURES

The acceptance criteria in the auxiliary feedwater (AFW) pump surveillance test procedures was inadequate since it did not ensure that the pump performance was capable of meeting accident analysis performance or pump operability criteria found in the Unit 1 and 2 Technical Specifications. This issue was considered potentially significant due to the allowable degraded core cooling capability associated with the established AFW pump minimum performance acceptance criteria. This issue has been entered into PSEG Nuclear's corrective action program (CAP). The issue was considered "green" in the significance determination process since it did not have an immediate impact on AFW system operability as determined by an evaluation of recent pump performance.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

MULTIPLE EXAMPLES OF INEFFECTIVE IMPLEMENTATION OF THE CORRECTIVE ACTION PROGRAM

The team identified some instances where PSEG Nuclear did not effectively implement the corrective action program (CAP): 1) A prior performance weakness resulted in a governor control system needle valve setting for the 23 AFW pump turbine that was not optimal for actual operating conditions; 2) During operation of the 23 AFW pump, the team identified that the turbine outboard bearing temperature exhibited an increasing trend, which represented an operability question, and PSEG Nuclear was not aware of this potential problem. Consequently, this problem was not entered into the CAP; and, 3) Other examples of ineffective implementation of the CAP were identified, including deficiencies not promptly entered into the CAP or not adequately corrected. These issues were considered to be significant in that they indicated an overall CAP weakness since problems were noted in not identifying corrective action items and the lack of timeliness and effectiveness of corrective actions. These issues were considered "green" in the significance determination process because they did not have an immediate impact on AFW system operability and were ultimately included in PSEG Nuclear's CAP.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE DESIGN CONTROL CONCERNING REPLACEMENT PARTS FOR POSITIONERS FOR AFW FLOW CONTROL VALVES

The team found that the positioners for the AFW flow control valves had been maintained with parts that were not qualified for use in safety-related applications. This issue was considered significant since the functionality for valves in a risk significant system was being challenged. The qualification issue was considered "green" in the significance determination process because it did not have an immediate impact on AFW system operability based on an engineering evaluation and the issue was being addressed by PSEG Nuclear's CAP.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: Licensee

Item Type: FIN Finding

CFCU TRAIN UNAVAILABILITY PERFORMANCE CRITERIA

PSEG nuclear personnel properly monitored containment fan cooling unit (CFCU) performance for reliability and unavailability. However, while PSEG's recent change in the CFCU train unavailability performance criteria was acceptable, it was not based on an evaluation of all of the appropriate factors. Also, the goals for the diesel generators were weak in that the cause of the associated unavailability was not addressed. This finding was assessed to be green as a reevaluation by PSEG of the CFCU train unavailability performance criteria using more appropriate factors revealed

only a minimal increase in large early release frequency (LERF).

Inspection Report# : [1999005\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: NRC

Item Type: FIN Finding

INCOMPLETE COMPENSATORY MEASURES FOR DEGRADED EQUIPMENT CONDITIONS

PSEG nuclear operators appropriately assessed three degraded equipment conditions in terms of their impact on the design basis functions of the affected systems. Each of the operability evaluations were completed in a timely manner. However, some of the associated compensatory measures were either incomplete or poorly controlled. This finding was evaluated to be green due to the minor significance of the compensatory measures needed and the absence of NRC requirements in this area.

Inspection Report# : [1999005\(pdf\)](#)

Barrier Integrity

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO DEVELOP ADEQUATE INSTRUCTIONS TO REPACK THE 2CV49 VALVE AS REQUIRED BY 10CFR50, APPENDIX B, CRITERION V

10 CFR 50, Appendix B, Criterion V, requires, in part, that activities affecting quality shall prescribed by documented instructions that include appropriate acceptance criteria to determine that important activities have been satisfactorily accomplished. Contrary to the above, PSEG Nuclear determined on September 6, 2001, that the packing data sheet for the 2CV49 valve was incorrect. As a result, valve 2CV49 developed an excessive packing leak that could have resulted in an exposure to the control room operators in excess of the 10 CFR 50, Appendix A, General Design Criteria 19 limits following a postulated LOCA.

Inspection Report# : [2001011\(pdf\)](#)

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO ISOLATE THE AFFECTED PENETRATION AS REQUIRED BY TS 3.6.3 SUBSEQUENT TO DISABLING SERVICE WATER VALVES 22SW58 AND 22SW72

Technical Specification 3.6.3, requires, in part, that inoperable containment penetration isolation valves be restored to an operable condition within four hours or the associated penetration shall be isolated. Contrary to the above, PSEG Nuclear disabled two containment isolation valves (22SW58 and 22SW72) on September 23, 2001, but did not isolate the associated penetration within four hours as required by TS 3.6.3.

Inspection Report# : [2001011\(pdf\)](#)

Significance:  Feb 27, 2000

Identified By: NRC

Item Type: FIN Finding

SMALL UNIDENTIFIED LEAK FROM THE CVCS AT UNIT 2 PERSISTED FOR 3 1/2 HOURS BEFORE IDENTIFICATION AND TERMINATION

A small unidentified leak from the chemical and volume control system at Unit 2 persisted for approximately 3 1/2 hours before operators recognized and terminated the condition. PSEG attributed the delays in recognizing the

condition, in part, to the fact that two other concurrent evolutions were in progress or had just been completed which effectively masked the indications of a leak, namely volume control tank level and plant ventilation radiation levels. The safety and risk significance of this incident was very low because adequate reactor coolant inventory sources remained available throughout the event and offsite release rates remained well below regulatory limits.

Inspection Report# : [2000001\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Significance:  Aug 29, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

INADVERTENT DISCHARGE FROM THE 23 WASTE GAS DECAY TANK TO THE AUXILIARY BUILDING

PSEG operators inadvertently vented radioactive gas into the Unit 2 auxiliary building. The plant vent and auxiliary building air radiation monitors detected increased radiation levels, which remained well below technical specification limits. Errors by control room and field operators, including failure to follow procedures, contributed to the incident. This event was characterized as a "green" issue since the increased radiation levels in the auxiliary building were well below regulatory limits.

Inspection Report# : [1999007\(pdf\)](#)

Public Radiation Safety

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN YEAR 2000 CALIBRATION RECORDS FOR CHEMICAL WASTE BASIN MONITOR (R37) AND UNIT 1 CONTAINMENT FAN COOLER-SW DISCHARGE MONITOR (1R13B)

Technical Specification Section 6.10.d requires that records of surveillance activities, inspections, and calibrations, required by the TSs, be retained for at least five years. The radiological calibration results for the Chemical Waste Basin Monitor (R37) and the Unit 1 Containment Fan Cooler-Service Water Line Discharge Monitor (1R13B) for the year 2000 were not retrievable. PSEG Nuclear placed this issue into its corrective action system as a Notification Report (Notification 20084063). The finding was determined to be of very low safety significance, because the issue did not impair the ability to assess the public dose, and did not result in exceeding public dose limits listed in Appendix I of 10 CFR 50 or 10 CFR 20.1301(d). The issue was not reportable in the Annual Radiological Effluent Report. Further, PSEG Nuclear produced a work record indicating the calibrations had been properly performed.

Inspection Report# : [2001011\(pdf\)](#)

Significance:  Oct 10, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO REPORT IN RAD. ENV. OP. REPORTS ACTIONS TO PREVENT RECURRENCE OF RAD.

ENVIR. AIR SAMPLER OUTAGES

PSEG failed to provide complete information in their 1997 and 1998 Annual Radiological Environmental Operating Reports in that these documents did not describe plans to prevent recurrence of multiple environmental air sampler outages. This issue was characterized as a Non-Cited Violation of TS 3.12.1. The safety significance of this issue was very low because it did not significantly compromise PSEG's ability to assess the environmental impact of continued plant operation.

Inspection Report# : [1999008\(pdf\)](#)

Significance:  Aug 29, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATELY PERFORMED SURVEILLANCE PROCEDURE

The carbon adsorber (activated charcoal) in the auxiliary building ventilation exhaust system was operated at an air flow in excess of the specified maximum. Operators declared the adsorber inoperable until engineering department personnel assessed the potential impact of this occurrence, which was later determined to be negligible. This issue had low safety significance since the excessive flow rate did not affect the adsorber's ability to filter radioiodine.

Insufficient attention to detail by a control room operator had resulted in this incident, which represented a non-cited violation of technical specification 6.8.1. This issue was characterized as a "green" event due to its very low safety significance since the excessive flow rate did not affect the adsorber's ability to filter radioiodine.

Inspection Report# : [1999007\(pdf\)](#)

Physical Protection

Significance:  Aug 29, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONDUCT PACKAGE SEARCH IN ACCORDANCE WITH SITE SECURITY PLAN

Security personnel did not properly search a hand-carried package prior to granting it unrestricted access to the site protected area (PA). Specifically, guards permitted a plant worker to bypass the x-ray machine and carry a large bag of moving blankets into the PA without a search of the bag's contents. Later examination of the bag's contents yielded no contraband. This incident was characterized as a "green" issue since no contraband was identified in the package which was not searched.

Inspection Report# : [1999007\(pdf\)](#)

Miscellaneous

Significance: N/A Mar 23, 2001

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION AND RESOLUTION PROGRAM INSPECTION

The licensee staff used the notification system appropriately to identify issues needing review for corrective actions. Daily issue review and prioritization meetings focused on safety and minimization of plant risk. Operators reviewed the risk worth of planned work activities. Operability determinations appeared adequate for the reviewed issues. Identified issues were being reviewed for apparent and root causes. Root cause evaluations were conducted to an appropriate depth and provided associated corrective actions. Corrective actions for identified issues were effective, commensurate with the safety significance of the issues, and sensitive to the necessity for reliable equipment performance. The extent of condition and generic applicability for significant conditions adverse to quality were properly considered. The size

of the corrective action backlog and timeliness of corrective action completion, with respect to safety significance, was formally tracked and managed. The licensee had taken actions commensurate with the importance of service water system issues; however, detritus and silt continued to challenge the operators and plant equipment. Self-assessments and audits were self-critical and provided appropriate feedback, including notifications and recommendations.

Inspection Report# : [2001004\(pdf\)](#)

Significance: N/A Nov 11, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO PERFORM A NITROGEN PURGE IN ACCORDANCE WITH PROCEDURES RESULTING IN INCREASED DOSE RATES

Plant procedure IOP-6 specifies that a degassification evolution be performed on the primary coolant during a shutdown, via purging the hydrogen cover gas in the volume control tank with nitrogen. The cover gas in the volume control tank was not purged with nitrogen during shutdown on October 6, 2000, as described in Notification 20042531. This resulted in PSEG Nuclear personnel having to perform a second chemically-induced crud burst, resulting in increased dose rates on various pipes and components located inside the bio-shield.

Inspection Report# : [2000009\(pdf\)](#)

Significance: N/A Apr 18, 2000

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION AND RESOLUTION

The licensee was effective at identifying problems. Nevertheless, the team found two instances, involving low significance, where issues were not entered into the corrective action process in a timely manner. The instances did not represent a programmatic trend or concern. The licensee's resolution of problems was adequate. Based on the sample reviewed, items entered into the corrective action program were properly classified and prioritized for resolution. Evaluations and root cause analysis were of good depth and quality. The prescribed corrective actions appeared appropriate to correct the problems and the corrective actions were generally completed in a timely manner. However, there were a few instances where the required evaluations for notifications were untimely or when the prescribed corrective actions were overdue. Although none of the examples resulted in a significant adverse condition, they were similar to previous NRC observations and the licensee's self-assessments of activities involving the corrective action program. In the area of safety conscious work environment (SCWE), plant personnel were familiar with and did not feel reluctant to use the processes that existed for raising safety issues.

Inspection Report# : [2000003\(pdf\)](#)

Last modified : December 02, 2002